IBM Ref. No.: ARC919990088 Docket No.: 1963-7350

We claim:

A system for managing digital resources on a network, the network connects to at least one 1 network site having at least one network server to access a first digital resource and a second digital 2 3 resource, the first digital resource having a link to the second digital resource, the system 4 comprising: a change-detection system connected to the network, wherein the change-detection system 5 6 examines the first digital resource and the second digital resource to detect an error in the link to the 7 second digital resource; and a notification system that communicates a message describing the error to an author of the 8 9 first digital resource. 1 2. The system of claim 1 further comprising: 2 a registration system connected to the network, the registration system having an interface 3 for a subscriber to create an association in a database between the author and the first digital 4 resource. 1 3. The system of claim 2, wherein the notification system further comprises: 2 a first notification subsystem that submits a query to the database to retrieve the author of 3 the first digital resource; and 4 a second notification subsystem that determines the author of the first digital resource if the 5

query by the first notification subsystem fails to retrieve the author of the first digital resource.

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1 4. The system of claim 3, wherein the second notification subsystem determines the author of

2 the first digital resource by applying heuristic algorithms and performing a probabilistic analysis.

1 5. The system of claim 1 further comprising:

2 an administrative system having an interface for an operator to maintain the system.

1 6. The system of claim 1, wherein the change-detection system further comprises:

a collection system connected to the network, wherein the collection system retrieves data

from said at least one network site and stores the data in a database; and

4 a detection system that examines the first digital resource and the second digital resource to

detect an error in the link to the second digital resource.

Web-crawler that retrieves data from said at least one network site.

1 7. The system of claim 6, wherein the collection system includes a Web-crawler that retrieves

data from said at least one network site.

1 8. The system of claim 1, wherein the notification system includes a resolution system that

generates the message describing the error in the link to the second digital resource.

1 9. The system of claim 1, wherein the message includes at least one resolution for the error.

10. The system of claim 9, wherein the message further includes a recommended resolution for

2 the error.

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1 11. The system of claim 10, wherein the message further includes a modified first digital

2 resource comprising a copy of the first digital resource altered by application of the recommended

- 3 resolution for the error.
- 1 12. The system of claim 11, wherein the notification system further communicates a request to
- 2 said at least one network server to replace the first digital resource with the modified digital
- 3 resource.
- 1 13. The system of claim 12, wherein the message includes an indication that the notification
- 2 system replaced the first digital resource with the modified first digital resource.
- 1 14. A method for managing digital resources on a network, the network connects to at least one
- 2 network site having at least one network server to access a first digital resource and a second digital
- 3 resource, the first digital resource having a link to the second digital resource, the method
- 4 comprising the steps of:
- 5 creating an association in a database between an author and the first digital resource;
- 6 retrieving data from said at least one network site;
- 7 storing the data in the database;
- 8 examining the first digital resource and the second digital resource to detect an error in the
- 9 link to the second digital resource;
- generating a message describing the error; and
- communicating the message to the author of the first digital resource.

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The method of claim 14, the message including at least one resolution for the disparate 1 15. 2 content. The method of claim 15, the message further including a recommended resolution for the 1 16. 2 disparate content. 1 17. The method of claim 16, the message further including a modified first digital resource 2 comprising a copy of the first digital resource altered by application of the recommended resolution. 1 18. The method of claim 17, wherein the communicating step further comprises: 2 transmitting a request to said at least one network server to replace the first digital resource 3 with the modified first digital resource. 19. 1 The method of claim 18, the message further including an indication that said at least one 2 network server replaced the first digital resource with the modified first digital resource. 20. 1 The method of claim 14, wherein the generating step further comprises: 2 querying the database for the author of the first digital resource. 21. The method of claim 20, wherein if the querying step fails to retrieve the author of the first 1 2 digital resource, the generating step further comprises:

applying heuristic algorithms; and

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4 performing a probabilistic analysis. 1 22. Computer executable software code stored on a computer readable medium, the code for managing digital resources on a network, the network connects to at least one network site having at 2 least one network server to access a first digital resource and a second digital resource, the first 3 4 digital resource having a link to the second digital resource, the code comprising: 5 code to create an association in a database between an author and the first digital resource; 6 code to detect a change in the first digital resource; and 7 code to notify the author of the change in the first digital resource. The computer executable software code of claim 22, wherein the code to detect a change 1 23. 2 further comprises: 3 code to retrieve data from said at least one network site and store the data in the database; 4 and 5 code to examine the first digital resource and the second digital resource to detect an error in 6 the link to the second digital resource. 1 24. The computer executable software code of claim 23, wherein the code to notify the author 2 further comprises: 3 code to generate a message describing a resolution for the error; and 4 code to communicate the message to the author of the first digital resource.

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- 1 25. The computer executable software code of claim 24, wherein the code to communicate the
- 2 message further comprises:
- 3 code to query the database for the author of the first digital resource; and
- 4 code to determine the author of the first digital resource by applying heuristic algorithms
- 5 and performing a probabilistic analysis if the code to query the database does not retrieve the author
- 6 of the first digital resource.
- 1 26. The computer executable software code of claim 22 further comprising:
- 2 code to maintain the database and software processes.